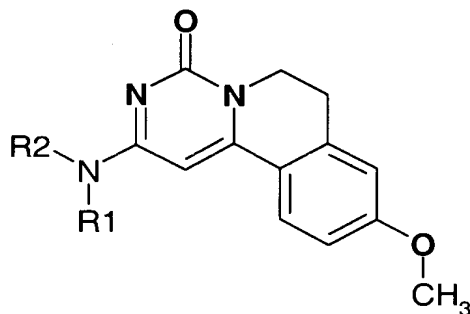


Amendments to the claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A compound of the formula I, or a salt, solvate, or a physiologically functional derivative thereof



in which

R1 is hydrogen, -NH₂, or C₁₋₆alkyl;

R2 is hydrogen; or

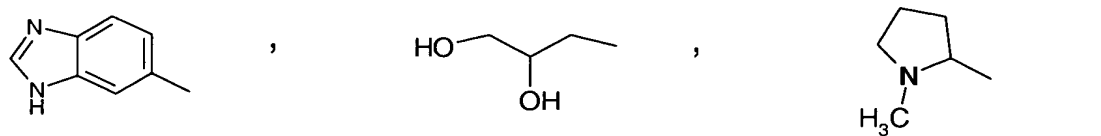
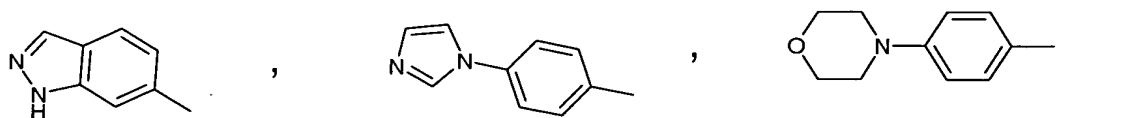
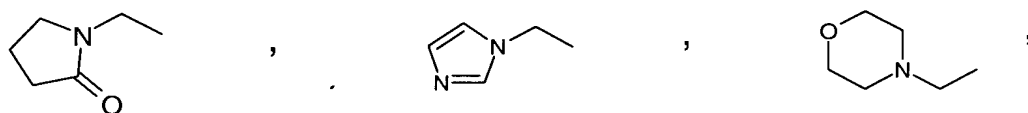
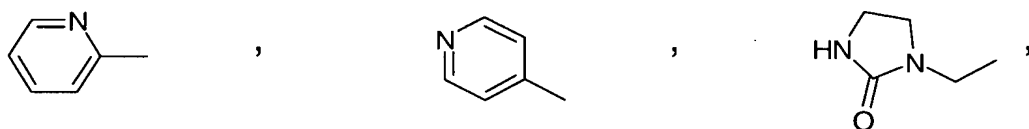
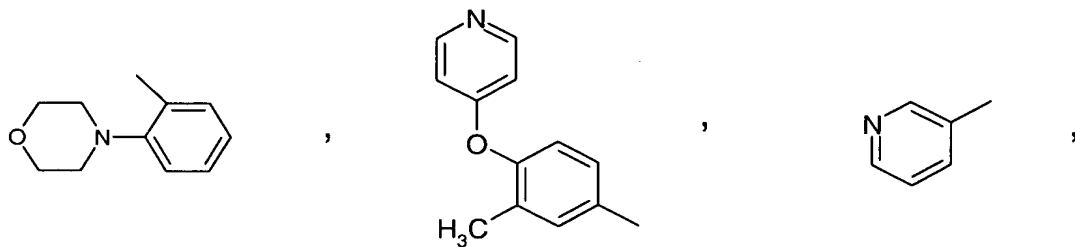
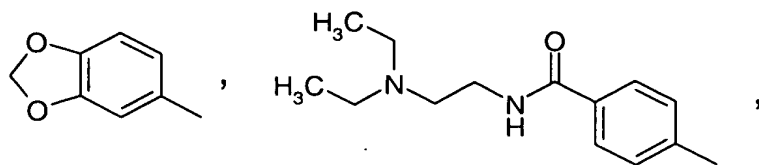
R2 is a radical of the formula

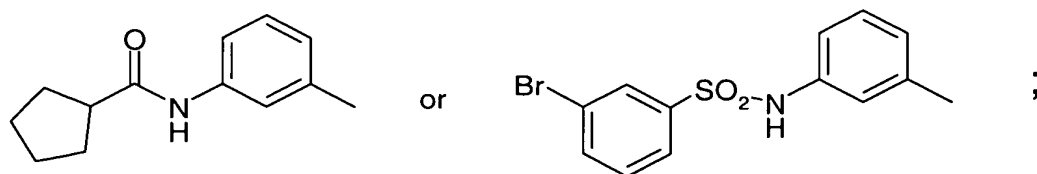
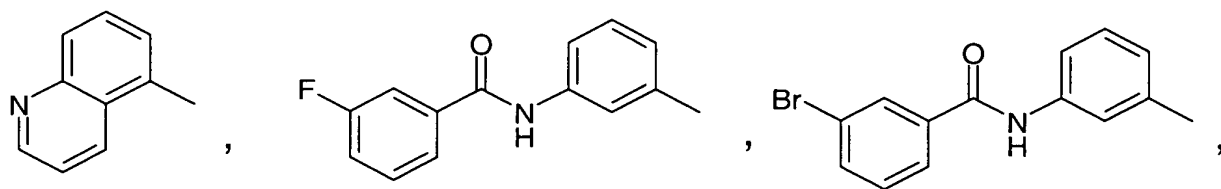
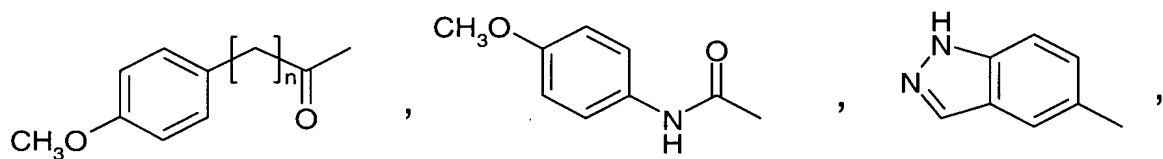
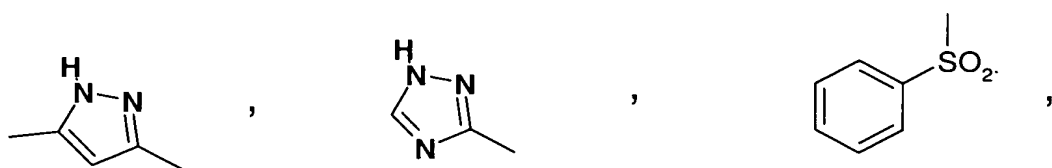
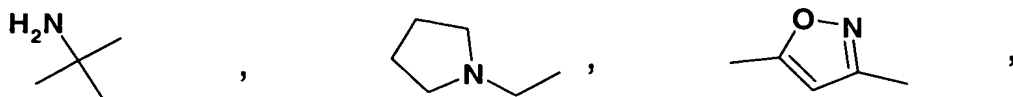
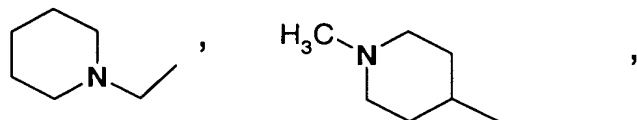
$\text{R}-\text{W}$

in which W is a bond, -CH₂-, -CH₂CH₂-, -C(=O)-, -NCH₃-, or -NH-;

R is C₃₋₆cycloalkyl, C₁₋₆alkyl, hydroxy, -NH₂, (C₁₋₆alkyl)₂N-, C₁₋₆alkylo-, C₁₋₆alkyloCH₂-, phenyl optionally and independently substituted with one to three C₁₋₆alkyl, halogen, C₁₋₆alkylo-, C₁₋₆alkyloC(=O)-, acetyl, NH₂C(=O)-, FSO₂-, -CF₃, NH₂SO₂-, dimethylamino; HOCH₂-, CH₃NHC(=O)-, hydroxy, phenyl; or

R is a radical of the formula





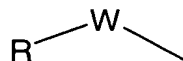
provided that W cannot be CH₂ when point of attachment of R to W is oxygen or nitrogen.

2. (Original) The compounds of formula I of claim 1 in which

R₁ is hydrogen, or C₁₋₆alkyl;

R₂ is hydrogen; or

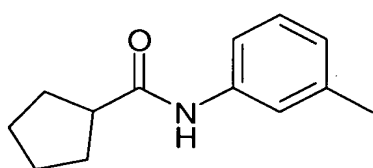
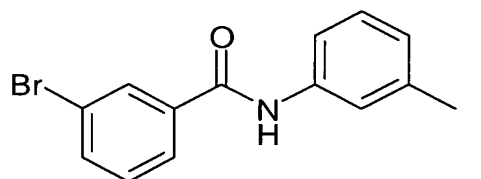
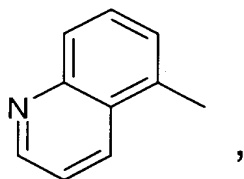
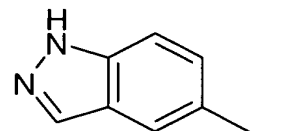
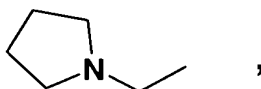
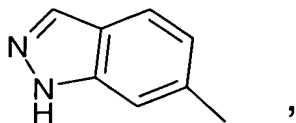
R₂ is a radical of the formula



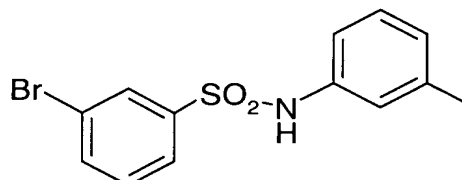
in which W is a bond, -CH₂-, -CH₂CH₂-, -C(=O)-, -NCH₃-, or -NH-;

R is C₁₋₆alkyl, hydroxy, -NH₂, (C₁₋₆alkyl)₂N-, C₁₋₆alkylo-, C₁₋₆alkyloCH₂-, phenyl optionally and independently substituted with one to three C₁₋₆alkyl, halogen, C₁₋₆alkylo-, C₁₋₆alkyloC(=O)-, -CF₃, NH₂SO₂-, hydroxy, phenyl; or

R is a radical of the formula



or



provided that W cannot be CH₂ when point of attachment of R to W is oxygen or nitrogen.

3. (Currently Amended) A method of inhibiting hYAK3 and/or MK2 proteins in a mammal; comprising, administering to the mammal a therapeutically effective amount of a compound of claim 1 ~~or 2~~, or a salt, solvate, or a physiologically functional derivative thereof.

4. (Currently Amended) A method of treating or preventing a disorder selected from the group consisting of neutropenia; cytopenia; anemias, including anemias due to renal insufficiency or to a chronic disease, such as autoimmunity or cancer, and drug-induced anemias; polycythemia; myelosuppression; rheumatoid arthritis; COPD; asthma; psoriasis; acute neuronal injury; heart failure; stroke, osteoarthritis; and ischemia reperfusion injury; comprising, administering to a mammal a therapeutically effective amount of a compound of claim 1 ~~or 2~~, or a salt, solvate, or a physiologically functional derivative thereof and one or more of pharmaceutically acceptable carriers, diluents and excipients.
5. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2,6-dimethoxy-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
6. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(1H-indazol-5-ylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
7. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(2-methoxy-6-methyl-phenylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one .
8. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(1H-indazol-6-ylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
9. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-bromo-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
10. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 3-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-ylamino)-benzenesulfonamide.
11. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-chloro-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
12. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2,6-dimethyl-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.)
13. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-bromo-6-fluoro-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.

14. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(3-methoxy-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
15. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-hydroxy-6-methyl-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
16. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(4-methoxy-biphenyl-3-ylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
17. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 3-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-ylamino)-benzoic acid ethyl ester.
18. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(2-methoxy-phenylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
19. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(2-trifluoromethyl-phenylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
20. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(4-chloro-2,6-dimethyl-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
21. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(quinolin-5-ylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
22. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-chloro-5-methoxy-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
23. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-[N'-(2-bromo-phenyl)-hydrazino]-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
24. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(N'-methyl-N'-phenyl-hydrazino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.

25. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-amino-ethylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
26. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(2-pyrrolidin-1-yl-ethylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
27. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-dimethylamino-ethylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
28. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-hydroxy-ethylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
29. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-[(2-methoxy-ethyl)-methyl-amino]-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
30. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(4-methoxy-benzylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
31. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(3-methoxy-benzylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
32. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 3-bromo-N-[3-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-ylamino)-phenyl]-benzamide.
33. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is cyclopentanecarboxylic acid [3-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-ylamino)-phenyl]-amide.
34. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 3-bromo-N-[3-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-ylamino)-phenyl]-benzenesulfonamide.
35. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-methoxy-N-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-yl)-acetamide.

36. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2,4,6-trichloro-N-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-yl)-benzamide.

37. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-methoxy-N-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-yl)-acetamide.